LEXICON GENETICS INC/TX Form SC 13G/A March 15, 2007

OMB APPROVAL

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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934

(Amendment No. 1)*

Lexicon Genetics Incorporated

(Name of Issuer)

Common Stock, \$0.001 par value per share

(Title of Class of Securities)

528872104

(CUSIP Number)

December 31, 2006

(Date of Event Which Requires Filing of this Statement)

| Check the appropriate box to designate the rule pursuant to which this Schedule is filed: | |
|---|--|
| "Rule 13d-1(b) | |

" Rule 13d-1(d)

x Rule 13d-1(c)

^{*} The remainder of this cover page shall be filled out for a reporting person s initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be filed for the purpose of Section 18 of the Securities Exchange Act of 1934 (Act) or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

Schedule 13G

| CUSIP No. 528872104 | | | | | | | |
|---|--|--|--|--|--|--|--|
| Names of Reporting Persons. I.R.S. Identification Nos. of above persons (entities only). | | | | | | | |
| Invus Public Equities, L.P. 98-0420215 2. Check the Appropriate Box if a Member of a Group (See Instructions) (a) " | | | | | | | |
| (b) " 3. SEC Use Only | | | | | | | |
| 4. Citizenship or Place of Organization | | | | | | | |
| Bermuda | 5. Sole Voting Power | | | | | | |
| NUMBER OF | 0 6. Shared Voting Power | | | | | | |
| SHARES | | | | | | | |
| BENEFICIALLY | 4,687,200 7. Sole Dispositive Power | | | | | | |
| OWNED BY | 0 8. Shared Dispositive Power | | | | | | |
| EACH | 4,687,200 | | | | | | |
| REPORTING | | | | | | | |
| PERSON | | | | | | | |
| WITH: | | | | | | | |
| 9. Aggregate Amo | unt Beneficially Owned by Each Reporting Person | | | | | | |
| 4,687,200 10. Check if the Ag | gregate Amount in Row (9) Excludes Certain Shares (See Instructions) | | | | | | |

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11. Percent of Class Represented by Amount in Row (9)
6.01%
12. Type of Reporting Person (See Instructions)

PN

Schedule 13G Page 3 of 10 CUSIP No. 528872104 1. Names of Reporting Persons. I.R.S. Identification Nos. of above persons (entities only). Invus Public Equities Advisors, L.L.C. 98-0420201 2. Check the Appropriate Box if a Member of a Group (See Instructions) (a) " (b) " 3. SEC Use Only 4. Citizenship or Place of Organization Delaware 5. Sole Voting Power NUMBER OF **SHARES** 6. Shared Voting Power BENEFICIALLY OWNED BY 4,687,200 7. Sole Dispositive Power **EACH** REPORTING **PERSON** 8. Shared Dispositive Power WITH: 4,687,200 9. Aggregate Amount Beneficially Owned by Each Reporting Person 4,687,200 10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)

11. Percent of Class Represented by Amount in Row (9)

6.01%

12. Type of Reporting Person (See Instructions)

00

Schedule 13G

| CUSIP No. 528872104 | | | | | | | |
|---|-----------|--|--|--|--|--|--|
| Names of Reporting Persons. I.R.S. Identification Nos. of above persons (entities only). | | | | | | | |
| Ulys, L.L.C 2. Check the A (a) " (b) " 3. SEC Use On | Appropria | 0359139 te Box if a Member of a Group (See Instructions) | | | | | |
| 4. Citizenship | or Place | of Organization | | | | | |
| Delaware | 5. | Sole Voting Power | | | | | |
| NUMBER OF | 6. | 0 Shared Voting Power | | | | | |
| SHARES | | 4,687,200 | | | | | |
| BENEFICIALL | Y 7. | | | | | | |
| OWNED BY | 8. | 0 Shared Dispositive Power | | | | | |
| EACH | | 4,687,200 | | | | | |
| REPORTING | | | | | | | |
| PERSON | | | | | | | |
| WITH: | | | | | | | |
| 9. Aggregate A | Amount E | deneficially Owned by Each Reporting Person | | | | | |
| 4,687 10. Check if the | | ate Amount in Row (9) Excludes Certain Shares (See Instructions) | | | | | |

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11. Percent of Class Represented by Amount in Row (9)
6.01%
12. Type of Reporting Person (See Instructions)

Schedule 13G Page 5 of 10 CUSIP No. 528872104 1. Names of Reporting Persons. I.R.S. Identification Nos. of above persons (entities only). Raymond Debbane 2. Check the Appropriate Box if a Member of a Group (See Instructions) (a) " (b) " 3. SEC Use Only 4. Citizenship or Place of Organization Panama 5. Sole Voting Power NUMBER OF **SHARES** 6. Shared Voting Power BENEFICIALLY OWNED BY 4,687,200 7. Sole Dispositive Power **EACH** REPORTING **PERSON** 8. Shared Dispositive Power WITH: 4,687,200 IN 9. Aggregate Amount Beneficially Owned by Each Reporting Person 4,687,200

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)

11. Percent of Class Represented by Amount in Row (9)
6.01%
12. Type of Reporting Person (See Instructions)

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| Item 1 (a). Name of Issuer: | | | | | |
|--|--|--|--|--|--|
| Lexicon Genetics, Inc. | | | | | |
| Item 1 (b). Address of Issuer s Principal Executive Offices: | | | | | |
| 8800 Technology Forest Place | | | | | |
| The Woodlands, Texas 77381 | | | | | |
| Item 2 (a). Name of Person Filing: | | | | | |
| Item 2 (b). Address of Principal Business Office or, if none, Residence: | | | | | |
| Item 2 (c). Citizenship: | | | | | |
| Invus Public Equities, L.P. | | | | | |
| 750 Lexington Avenue | | | | | |
| 30 th Floor | | | | | |
| New York, New York 10022 | | | | | |
| Bermuda | | | | | |
| Invus Public Equities Advisors, L.L.C. | | | | | |
| 750 Lexington Avenue | | | | | |
| 30 th Floor | | | | | |
| New York, New York 10022 | | | | | |
| Delaware | | | | | |
| Ulys, LLC | | | | | |
| 750 Lexington Avenue | | | | | |
| 30 th Floor | | | | | |
| New York, New York 10022 | | | | | |
| Delaware | | | | | |
| Raymond Debbane | | | | | |
| c/o Ulys, L.L.C. | | | | | |
| 750 Lexington Avenue | | | | | |
| | | | | | |

30th Floor

New York, New York 10022

Panama

Item 2 (d). Title of Class of Securities:

Common Stock, \$0.001 par value per share

Item 2 (e). CUSIP Number:

528872104

| Item | 3. | If this statement is filed pursuant to | §§240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a: | | |
|---------|---|---|--|--|--|
| (a) | " Bro | oker or dealer registered under section 15 | of the Act (15 U.S.C. 78o). | | |
| (b) | " Baı | nk as defined in section 3(a)(6) of the Act | (15 U.S.C. 78c). | | |
| (c) | " Ins | "Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c). | | | |
| | (d) | "Investment company registered under | section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8). | | |
| (e) | " An | investment adviser in accordance with §2 | 240.13d-1(b)(1)(ii)(E); | | |
| | (f) | "An employee benefit plan or endowme | ent fund in accordance with §240.13d-1(b)(1)(ii)(F); | | |
| (g) | A t | parent holding company or control person | in accordance with §240.13d-1(b)(1)(ii)(G); | | |
| | (h) | "A savings associations as defined in Se | ection 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813); | | |
| | (i) | "A church plan that is excluded from th Act of 1940 (15 U.S.C. 80a-3); | e definition of an investment company under section 3(c)(14) of the Investment Company | | |
| (j) |) "Group, in accordance with §240.13d-1(b)(1)(ii)(J). | | | | |
| Item 4. | | Ownership. | | | |
| | (a) | Amount beneficially owned: | 4,687,200 common shares | | |
| | (b) | Percent of class: | 6.01% | | |
| | (c) | Number of shares as to which each person | on has: | | |
| | | (i) Sole power to vote or to direct th | e vote | | |

- (ii) Shared power to vote or to direct the vote 4,687,200 common shares.
- (iii) Sole power to dispose or to direct the disposition of
- (iv) Shared power to dispose or to direct the disposition of 4,687,200 common shares.

Item 5. Ownership of Five Percent or Less of a Class

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following ".

Item 6. Ownership of More than Five Percent on Behalf of Another Person.

Not Applicable

Item 7. Identification and Classification of the Subsidiary Which acquired the Security Being Reported on By the Parent Holding Company.

Not Applicable

Item 8. Identification and Classification of Members of the Group.

Not Applicable

Item 9. Notice of Dissolution of Group.

Not Applicable

Item 10. Certification.

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

INVUS PUBLIC EQUITIES, L.P.

By: Invus Public Equities Advisors, L.L.C.,

As General Partner

By: /s/ Raymond Debbane Raymond Debbane, President

INVUS PUBLIC EQUITIES ADVISORS, L.L.C.

By: /s/ Raymond Debbane Raymond Debbane, President

ULYS, L.L.C.

By: /s/ Raymond Debbane Raymond Debbane, President

RAYMOND DEBBANE

By: /s/ Raymond Debbane Raymond Debbane, President

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Exhibit A

JOINT FILING AGREEMENT

JOINT FILING AGREEMENT, dated as of the 15th day of March, 2007, among INVUS PUBLIC EQUITIES, L.P., INVUS PUBLIC EQUITIES ADVISORS, LLC, ULYS, LLC, and FAYMOND DEBBANE (COLLECTIVELY, THE JOINT FILERS).

WHEREAS, pursuant to Rule 13d-1(b)(1)(ii)(K) under the Securities Exchange Act of 1934, as amended (the Exchange Act), the parties hereto desire to satisfy any filing obligation under Section 13(g) of the Exchange Act by a single joint filing;

NOW, THEREFORE, in consideration of the premises and the mutual covenants herein contained, the Joint Filers hereby agree and represent as follows:

- 1. Exhibit A to the Schedule 13G Amendment No. 1 with respect to the Common Stock, par value \$0.001 per share, of Lexicon Genetics Incorporated (to which this Joint Filing Agreement is an exhibit) is filed on behalf of each of the Joint Filers.
- 2. Each of the Joint filers is eligible to use Schedule 13G for the filing of information therein.
- 3. Each of the Joint Filers is responsible for the timely filing of Schedule 13G and any amendments thereto, and for the completeness and accuracy of the information concerning such person contained therein, provided that each such person is not responsible for the completeness or accuracy of the information concerning the other persons making the filing, unless such person knows or has reason to believe that such information is inaccurate.

[SIGNATURES APPEAR ON FOLLOWING PAGE]

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IN WITNESS WHEREOF, each of the undersigned has caused this Joint Filing Agreement to be duly executed and delivered as of the date first above written.

Dated: March 15, 2007

INVUS PUBLIC EQUITIES, L.P.

By: Invus Public Equities Advisors, L.L.C.,

As General Partner

By: /s/ Raymond Debbane Raymond Debbane, President

INVUS PUBLIC EQUITIES ADVISORS, L.L.C.

By: /s/ Raymond Debbane Raymond Debbane, President

ULYS, L.L.C.

By: /s/ Raymond Debbane Raymond Debbane, President

RAYMOND DEBBANE

By: /s/ Raymond Debbane Raymond Debbane